SEQUENCE LISTING

	(1) GEN	NERAL INFORMATION:
5	(i)	APPLICANT: Jardieu, Paula M. Presta, Leonard G.
	(ii)	TITLE OF INVENTION: Humanized Anti-CD11a Antibodies
10	(iii)	NUMBER OF SEQUENCES: 71
15	(iv)	CORRESPONDENCE ADDRESS: (A) ADDRESSEE: Genentech, Inc. (B) STREET: 1 DNA Way (C) CITY: South San Francisco (D) STATE: California (E) COUNTRY: USA (F) ZIP: 94080
20	(v)	COMPUTER READABLE FORM: (A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk (B) COMPUTER: IBM PC compatible (C) OPERATING SYSTEM: PC-DOS/MS-DOS (D) SOFTWARE: WinPatin (Genentech)
25	(vi)	CURRENT APPLICATION DATA: (A) APPLICATION NUMBER: (B) FILING DATE: 19-SEP-03 (C) CLASSIFICATION:
30	(vii)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: 60/031971 (B) FILING DATE: 27-NOV-1996
35	(vii)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: 08/974899 (B) FILING DATE: 20-NOV-1997
40	(vii)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: 09/420745 (B) FILING DATE: 20-OCT-1999
45	(vii)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: 09/975798 (B) FILING DATE: 28-FEB-2001
	(viii)	ATTORNEY/AGENT INFORMATION:

	(A) NAME: Tan, Lee K.(B) REGISTRATION NUMBER: 39,447(C) REFERENCE/DOCKET NUMBER: P1014R1C1D1C1
5	(ix) TELECOMMUNICATION INFORMATION: (A) TELEPHONE: 650/225-4462 (B) TELEFAX: 650/952-9881 (2) INFORMATION FOR SEQ ID NO:1:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 108 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
15	Asp Val Gln Ile Thr Gln Ser Pro Ser Tyr Leu Ala Ala Ser Pro 1 5 10 15
20	Gly Glu Thr Ile Ser Ile Asn Cys Arg Ala Ser Lys Thr Ile Ser 20 25 . 30
	Lys Tyr Leu Ala Trp Tyr Gln Glu Lys Pro Gly Lys Thr Asn Lys 35 40 45
25	Leu Leu Ile Tyr Ser Gly Ser Thr Leu Gln Ser Gly Ile Pro Ser 50 55 60
30	Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile 65 70 75
	Ser Ser Leu Glu Pro Glu Asp Phe Ala Met Tyr Tyr Cys Gln Gln 80 85 90
35	His Asn Glu Tyr Pro Leu Thr Phe Gly Thr Gly Thr Lys Leu Glu 95 100 105
	Leu Lys Arg
40	(2) INFORMATION FOR SEQ ID NO:2:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 108 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

	Asp 1	Ile	Gln	Met	Thr 5	Gln	Ser	Pro	Ser	Ser 10	Leu	Ser	Ala	Ser	Val 15
_	Gly	Asp	Arg	Val	Thr 20	Ile	Thr	Cys	Arg	Ala 25	Ser	Lys	Thr	Ile	Ser 30
5	Lys	Tyr	Leu	Ala	Trp 35	Tyr	Gln	Gln	Lys	Pro 40	Gly	Lys	Ala	Pro	Lys 45
10	Leu	Leu	Ile	Tyr	Ser 50	Gly	Ser	Thr	Leu	Gln 55	Ser	Gly	Val	Pro	Ser 60
	Arg	Phe	Ser	Gly	Ser 65	Gly	Ser	Gly	Thr	Asp 70	Phe	Thr	Leu	Thr	Ile 75
15	Ser	Ser	Leu	Gln	Pro 80	Glu	Asp	Phe	Ala	Thr 85	Tyr	Tyr	Cys	Gln	Gln 90
<u></u>	His	Asn	Glu	Tyr	Pro 95	Leu	Thr	Phe	Gly	Gln 100	Gly	Thr	Lys	Val	Glu 105
20	Ile	Lys	Arg												
25			RMAT:												
25		i) S (EQUE A) L B) T	NCE ENGT: YPE:	CHAR H: 1 Ami	ACTE 08 a no A	RIST mino cid		ds						
25 30	(i) S ((EQUE A) L B) T D) T	NCE ENGT YPE: OPOL	CHAR H: 1 Ami: OGY:	ACTE 08 a no A Lin	RIST mino cid ear	ICS:		NO:3	:				
30	(x	i) S (((EQUE A) L B) T D) T EQUE	NCE ENGT: YPE: OPOL	CHAR H: 1 Ami OGY:	ACTE 08 a no A Lin RIPT	RIST mino cid ear ION:	ICS: aci	ID:		Leu	Ser	Ala	Ser	Val 15
	(x Asp	i) S ((((i) S	EQUE A) L B) T D) T EQUE	NCE ENGT YPE: OPOL NCE	CHAR. H: 1 Ami: OGY: DESC Thr	ACTE: 08 an no A Lin RIPT Gln	RIST mino cid ear ION:	ICS: aci	ID : Ser	Ser 10	Leu				15
30	(x Asp 1	i) S (((i) S Ile	EQUE A) L B) T D) T EQUE Gln	NCE ENGT: YPE: OPOL NCE Met	CHAR. H: 1 Ami OGY: DESC Thr 5 Thr	ACTE 08 an no A Lin RIPT Gln Ile	RIST mino cid ear ION: Ser	ICS: aci SEQ Pro	ID : Ser	Ser 10 Ala 25	Leu Ser Gly	Gln	Ser	Ile	15 Ser 30
30 35	(x Asp 1 Gly Asn	i) S ((i) S Ile Asp	EQUE A) L B) T D) T EQUE Gln Arg	NCE YPE: OPOL NCE Met Val	CHAR. H: 1 Ami: OGY: DESC Thr 5 Thr 20 Trp 35	ACTE 08 an no A Lin RIPT Gln Ile Tyr	RIST mino cid ear ION: Ser Thr	ICS: aci SEQ Pro	ID : Ser Arg	Ser 10 Ala 25 Pro 40	Leu Ser Gly Ser	Gln Lys	Ser Ala	Ile Pro	Ser 30 Lys 45

	Ser	Ser	Leu	Gln	Pro 80	Glu	Asp	Phe	Ala	Thr 85	Tyr	Tyr	Cys	Gln	Gln 90
E	Tyr	Asn	Ser	Leu	Pro 95	Trp	Thr	Phe	Gly	Gln 100	Gly	Thr	Lys	Val	Glu 105
5	Ile	Lys	Arg												
10	(2)					SEQ I									
	(-	(<i>I</i>	A) LE 3) TY	ENGTH	I: 12 Amir	21 an no Ac Line	nino cid		ls						
15	(x:					RIPTI		SEQ	ID I	NO:4	:				
00	Glu 1	Val	Gln	Leu	Gln 5	Gln	Pro	Gly	Ala	Glu 10	Leu	Met	Arg	Pro	Gly 15
20	Ala	Ser	Val	Lys	Leu 20	Ser	Cys	Lys	Ala	Ser 25	Gly	Tyr	Ser	Phe	Thr 30
25	Gly	His	Trp	Met	Asn 35	Trp	Val	Arg	Gln	Arg 40	Pro	Gly	Gln	Gly	Leu 45
	Glu	Trp	Ile	Gly	Met 50	Ile	His	Pro	Ser	Asp 55	Ser	Glu	Thr	Arg	Leu 60
30	Asn	Gln	Lys	Phe	Lys 65	Asp	Lys	Ala	Thr	Leu 70	Thr	Val	Asp	Lys	Ser 75
0.5	Ser	Ser	Ser	Ala	Tyr 80	Met	Gln	Leu	Ser	Ser 85		Thr	Ser	Glu	Asp 90
35	Ser	Ala	Val	Tyr	Tyr 95	Cys	Ala	Arg	Gly	Ile 100		Phe	Tyr	Gly	Thr 105
40	Thr	Tyr	Phe	Asp	Tyr 110	Trp	Gly	Gln	Gly	Thr 115	Thr	Leu	Thr	Val	Ser 120
	Ser														
45						SEQ									
	(1) S	EQUE	NCE	CHAR	ACTE	RIST	TCS:							

		(E		PE:											
_	(x:	i) SE	EQUEN	ICE D	ESCR	IPTI	ON:	SEQ	ID N	iO:5:					
5	Glu 1	Val	Gln	Leu	Val 5	Glu	Ser	Gly	Gly	Gly 10	Leu	Val	Gln	Pro	Gly 15
10	Gly	Ser	Leu	Arg	Leu 20	Ser	Cys	Ala	Ala	Ser 25	Gly	Tyr	Ser	Phe	Thr 30
	Gly	His	Trp	Met	Asn 35	Trp	Val	Arg	Gln	Ala 40	Pro	Gly	Lys	Gly	Leu 45
15	Glu	Trp	Val	Gly	Met 50	Ile	His	Pro	Ser	Asp 55	Ser	Glu	Thr	Arg	Tyr 60
20	Asn	Gln	Lys	Phe	Lys 65	Asp	Arg	Phe	Thr	Ile 70	Ser	Val	Asp	Lys	Ser 75
20	Lys	Asn	Thr	Leu	Tyr 80	Leu	Gln	Met	Asn	Ser 85	Leu	Arg	Ala	Glu	Asp 90
25	Thr	Ala	Val	Tyr	Tyr 95	Cys	Ala	Arg	Gly	Ile 100	Tyr	Phe	Tyr	Gly	Thr 105
	Thr	Tyr	Phe	Asp	Tyr 110	Trp	Gly	Gln	Gly	Thr 115	Leu	Val	Thr	Val	Ser 120
30	Ser														
	(2)	INFO	RMAT	ION I	FOR S	SEQ	ID N	0:6:							
35	((.	A) L B) T	NCE (ENGTI YPE: OPOL(H: 1: Ami:	13 a no A	mino cid		ds						
40	(x	i) S	EQUE	NCE 1	DESC	RIPT	ION:	SEQ	ID I	NO : 6	:				
	Glu 1		Gln	Leu	Val 5	Glu	Ser	Gly	Gly	Gly 10	Leu	Val	Gln	Pro	Gly 15
45	Gly	ser Ser	Leu	Arg	Leu 20	Ser	Cys	Ala	Ala	Ser 25		Phe	Thr	Phe	Ser 30

(A) LENGTH: 121 amino acids

	Ser	Tyr	Ala	Met	Ser 35	Trp	Val	Arg	Gln	Ala 40	Pro	Gly	Lys	Gly	Leu 45
	Glu	Trp	Val	Ser	Val 50	Ile	Ser	Gly	Asp	Gly 55	Gly	Ser	Thr	Tyr	Tyr 60
5	Ala	Asp	Ser	Val	Lys 65	Gly	Arg	Phe	Thr	Ile 70	Ser	Arg	Asp	Asn	Ser 75
10	Lys	Asn	Thr	Leu	Tyr 80	Leu	Gln	Met	Asn	Ser 85	Leu	Arg	Ala	Glu	Asp 90
	Thr	Ala	Val	Tyr	Tyr 95	Cys	Ala	Arg	Gly	Phe 100	Asp	Tyr	Trp	Gly	Gln 105
15	Gly	Thr	Leu	Val	Thr 110	Val	Ser	Ser							
	(2) I	NFOF	TAMS	ION F	FOR S	SEQ :	ID N	0:7:							
20	(i	(2	A) L1 3) T	NCE (ENGTI YPE:	4: 18 Ami:	34 an no A	mino cid		ds						
		(1) T	OPOL	OGY:	Lin	ear								
25	(xi	•		NCE 1				SEQ	ID :	NO:7	:				
25	·	i) SI	EQUE:		DESC	RIPT	ION:					Gly	Ser	Met	Ser 15
25 30	Lys 1	i) SI Gly	EQUE:	NCE I	DESCI Asp 5	RIPT Leu	ION: Val	Phe	Leu	Phe 10	Asp				15
30	Lys 1 Leu	i) SI Gly Gln	EQUE: Asn Pro	NCE 1	Asp 5 Glu 20	RIPT Leu Phe	ION: Val Gln	Phe Lys	Leu	Phe 10 Leu 25	Asp Asp	Phe	Met	Lys	Asp 30
	Lys 1 Leu Val	Gly Gln Met	Asn Pro Lys	NCE I Val Asp	Asp 5 Glu 20 Leu 35	Leu Phe Ser Tyr	ION: Val Gln Asn	Phe Lys	Leu Ile Ser	Phe 10 Leu 25 Tyr 40	Asp Gln Asp	Phe Phe	Met Ala	Lys Ala	Asp 30 Val 45
30	Lys 1 Leu Val	Gly Gln Met	Asn Pro Lys Ser	NCE 1 Val Asp Lys	Asp 5 Glu 20 Leu 35 Ser	Leu Phe Ser Tyr	ION: Val Gln Asn Lys	Phe Lys Thr	Leu Ile Ser	Phe 10 Leu 25 Tyr 40 Phe 55	Asp Gln Asp	Phe Phe Phe	Met Ala Ser	Lys Ala Asp	Asp 30 Val 45 Tyr 60
30 35	Lys 1 Leu Val Gln	Gly Gln Met Phe	Asn Pro Lys Ser	NCE 1 Val Asp Lys Thr	Asp Glu 20 Leu 35 Ser 50 Asp	Leu Phe Ser Tyr Pro	ION: Val Gln Asn Lys	Phe Lys Thr Thr	Leu Ile Ser Glu	Phe 10 Leu 25 Tyr 40 Phe 55 Leu 70	Asp Gln Asp Lys	Phe Phe Phe	Met Ala Ser	Lys Ala Asp	Asp 30 Val 45 Tyr 60 His

	Lys	Val	Leu	Ile	Ile 110	Ile	Thr	Asp	Gly	Glu 115	Ala	Thr	Asp	Ser	Gly 120
-	Asn	Ile	Asp	Ala	Ala 125	Lys	Asp	Ile	Ile	Arg 130	Tyr	Ile	Ile	Gly	Ile 135
5	Gly	Lys	His	Phe	Gln 140	Thr	Lys	Glu	Ser	Gln 145	Glu	Thr	Leu	His	Lys 150
10	Phe	Ala	Ser	Lys	Pro 155	Ala	Ser	Glu	Phe	Val 160	Lys	Ile	Leu	Asp	Thr 165
	Phe	Glu	Lys	Leu	Lys 170	Asp	Leu	Phe	Thr	Glu 175	Leu	Gln	Lys	Lys	Ile 180
15	Tyr	Val	Ile	Glu											
	(2) I	NFOF	TAMS	I NO	FOR S	SEQ I	D N	3:8:							
20	(i	(1	A) LI	NCE (ENGTI	4: 18		mino		ds						
				OPOL(
25	(xi	(1) T(OGY:	Line	ear	SEQ	ID I	NO:8	•				
25	·	(I L) SI	O) TO	OPOL	OGY: DESCI	Line	ear ION:					Gly	Ser	Met	Ser 15
25 30	Lys 1	(I) SI Gly	O) TO EQUEI Asn	NCE 1	OGY: DESCI Asp 5	Line RIPT: Leu	ear ION: Ile	Phe	Leu	Phe 10	Asp				15
30	Lys 1 Leu	(I Sly Gly	O) TO EQUE Asn Pro	OPOLO NCE I Val	DESCI Asp 5 Glu 20	Line RIPT: Leu Phe	ear ION: Ile Gln	Phe Lys	Leu Ile	Phe 10 Leu 25	Asp	Phe	Met	Lys	15 Asp 30
	Lys 1 Leu Val	(I) SI Gly Gln Met	O) TO EQUEI Asn Pro Lys	OPOLO NCE I Val Asp	DESCI Asp 5 Glu 20 Leu 35	Line RIPT: Leu Phe Ser Tyr	ear ION: Ile Gln Asn	Phe Lys Thr	Leu Ile Ser	Phe 10 Leu 25 Tyr 40 Phe	Asp Asp Gln	Phe Phe	Met Ala	Lys	15 Asp 30 Val 45
30	Lys 1 Leu Val	(I) SI Gly Gln Met	D) TO EQUE Asn Pro Lys Ser	OPOLO NCE 1 Val Asp Lys	DESCI Asp 5 Glu 20 Leu 35 Ser 50	Line RIPT: Leu Phe Ser Tyr	ear ION: Ile Gln Asn Lys	Phe Lys Thr	Leu Ile Ser	Phe 10 Leu 25 Tyr 40 Phe 55	Asp Gln Asp	Phe Phe	Met Ala Ser	Lys Ala Asp	15 Asp 30 Val 45 Tyr 60
30 35	Lys 1 Leu Val Gln	(I) SI Gly Gln Met Phe Lys	D) TO EQUED Asn Pro Lys Ser Gln	OPOLO NCE 1 Val Asp Lys	Asp Slu 20 Leu 35 Ser 50 Asp 65	Line RIPT: Leu Phe Ser Tyr Pro Asn	ear ION: Ile Gln Asn Lys Asp	Phe Lys Thr Thr	Leu Ile Ser Glu Leu	Phe 10 Leu 25 Tyr 40 Phe 55 Leu 70	Asp Gln Asp Glu Ile	Phe Phe Phe	Met Ala Ser Val	Lys Ala Asp Lys	15 Asp 30 Val 45 Tyr 60 His 75

	Lys Val Leu He He He Thr Asp Gly Glu Ala Hir Asp Ser Gl 110 115 12
-	Asn Ile Asp Ala Ala Lys Asp Ile Ile Arg Tyr Ile Ile Gly Il 125 130 13
5	Gly Lys His Phe Gln Thr Lys Glu Ser Gln Glu Thr Leu His Ly 140 145 15
10	Phe Ala Ser Lys Pro Ala Ser Glu Phe Val Lys Ile Leu Asp Th 155 160 16
	Phe Glu Lys Leu Lys Asp Leu Phe Thr Glu Leu Gln Lys Lys Il 170 175 18
15	Tyr Ala Ile Glu
	(2) INFORMATION FOR SEQ ID NO:9:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
25	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:
	Lys His Val Lys His Met Leu 1 5
30	(2) INFORMATION FOR SEQ ID NO:10:
	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid
35	(D) TOPOLOGY: Linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:
40	Gly Tyr Ser Phe Thr Gly His Trp Met Asn 1 5 10
	(2) INFORMATION FOR SEQ ID NO:11:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear

	Met Ile His Pro Ser Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
5	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:12:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 12 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:
	Gly Ile Tyr Phe Tyr Gly Thr Thr Tyr Phe Asp Tyr 1 5 10
20	(2) INFORMATION FOR SEQ ID NO:13:
25	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:
30	Arg Ala Ser Lys Thr Ile Ser Lys Tyr Leu Ala 1 5 10
	(2) INFORMATION FOR SEQ ID NO:14:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
40	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:
40	Ser Gly Ser Thr Leu Gln Ser 1 5
45	(2) INFORMATION FOR SEQ ID NO:15:
70	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 9 amino acids

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

	(D) TOPOLOGY: Linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:
5	Gln Gln His Asn Glu Tyr Pro Leu Thr 1 5
	(2) INFORMATION FOR SEQ ID NO:16:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:
	Pro Lys Asn Ser Ser Met Ile Ser Asn Thr Pro 1 5 10
20	(2) INFORMATION FOR SEQ ID NO:17:
25	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:
30	His Gln Ser Leu Gly Thr Gln 1 5
	(2) INFORMATION FOR SEQ ID NO:18:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 8 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
40	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:
40	His Gln Asn Leu Ser Asp Gly Lys 1 5
45	(2) INFORMATION FOR SEQ ID NO:19:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 8 amino acids

(B) TYPE: Amino Acid

	(B) TYPE: Amino Acid (D) TOPOLOGY: Linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:
5	His Gln Asn Ile Ser Asp Gly Lys 1 5
	(2) INFORMATION FOR SEQ ID NO:20:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 8 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:
	Val Ile Ser Ser His Leu Gly Gln 1 5
20	(2) INFORMATION FOR SEQ ID NO:21:
25	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 26 base pairs(B) TYPE: Nucleic Acid(C) STRANDEDNESS: Single(D) TOPOLOGY: Linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:
30	CACTTTGGAT ACCGCGTCCT GCAGGT 26
	(2) INFORMATION FOR SEQ ID NO:22:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 26 base pairs(B) TYPE: Nucleic Acid(C) STRANDEDNESS: Single
40	(D) TOPOLOGY: Linear
70	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:
45	CATCCTGCAG GTCTGCCTTC AGGTCA 26
70	(2) INFORMATION FOR SEQ ID NO:23:

	(A) LENGTH: 17 amino acids (B) TYPE: Amino Acid (D) TOPOLOGY: Linear
5	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:
	Met Ile Ala Pro Ala Ser Ser Ser Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
10	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:24:
15	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 121 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY: Linear
20	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:
	Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly 1 5 10
25	Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ser Phe Thr 20 25 30
00	Gly His Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu 35 40 45
30	Glu Trp Val Gly Met Ile Ala Pro Ala Ser Ser Ser Thr Arg Tyr 50 55 60
35	Asn Gln Lys Phe Lys Asp Arg Phe Thr Ile Ser Val Asp Lys Ser 65 70 75
	Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp 80 85 90
40	Thr Ala Val Tyr Tyr Cys Ala Arg Gly Ile Tyr Phe Tyr Gly Thr 95 100 105
45	Thr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser 110 115 120
45	Ser

(i) SEQUENCE CHARACTERISTICS:

5	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:
10	Gly Tyr Ser Phe Thr Gly His Trp Met Asn 1 5 10
	(2) INFORMATION FOR SEQ ID NO:26:
15	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
20	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:
20	Gly Tyr Ala Phe Ala Gly Ala Trp Met Asn 1 5 10
25	(2) INFORMATION FOR SEQ ID NO:27:
23	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
30	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:
35	Gly Tyr Ala Phe Thr Gly His Trp Met Asn 1 5 10
55	(2) INFORMATION FOR SEQ ID NO:28:
40	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:
45	Gly Tyr Ser Phe Ala Gly His Trp Met Asn 1 5 10

(2) INFORMATION FOR SEQ ID NO:25:

	(2) International Control of the Con
5	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:
10	Gly Tyr Ser Phe Thr Ala His Trp Met Asn 1 5 10
	(2) INFORMATION FOR SEQ ID NO:30:
15	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
20	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:
20	Gly Tyr Ser Phe Thr Gly Ala Trp Met Asn 1 5 10
25	(2) INFORMATION FOR SEQ ID NO:31:
23	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
30	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:
35	Gly Tyr Ser Phe Thr Gly His Ala Met Asn 1 5 10
33	(2) INFORMATION FOR SEQ ID NO:32:
40	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:
45	Met Ile His Pro Ser Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10

(2) INFORMATION FOR SEQ ID NO:29:

Lys Asp

(2) INFORMATION FOR SEQ ID NO:33:

5	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
10	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:
	Met Ile Ala Pro Ala Asp Ala Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
15	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:34:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
25	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:
	Met Ile His Pro Ser Ala Ser Ala Thr Ala Tyr Asn Gln Lys Phe 1 5 10 15
30	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:35:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
40	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:
	Met Ile Ala Pro Ala Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10
45	Lys Asp

5	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:
10	Met Ile His Pro Ala Asp Ala Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
	Lys Asp
15	(2) INFORMATION FOR SEQ ID NO:37:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:
25	Met Ile Ala Pro Ser Asp Ala Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10
	Lys Asp
30	(2) INFORMATION FOR SEQ ID NO:38:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:
40	Met Ile Ala Pro Ser Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10
	Lys Asp
45	(2) INFORMATION FOR SEQ ID NO:39:
	(i) SEQUENCE CHARACTERISTICS:

(2) INFORMATION FOR SEQ ID NO:36:

	(B) TYPE: Amino Acid (D) TOPOLOGY:
_	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:
5	Met Ile Ser Pro Ser Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
10	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:40:
15	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
20	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:
20	Met Ile His Pro Ala Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
25	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:41:
30	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
35	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:
33	Met Ile His Pro Ser Ala Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
40	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:42:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:

(A) LENGTH: 17 amino acids

5	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:43:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:
	Met Ile His Pro Ser Asp Asn Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
20	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:44:
25	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
30	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:
	Met Ile His Pro Ser Asp Gln Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
35	Lys Asp
	(2) INFORMATION FOR SEQ ID NO:45:
40	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
45	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:
	Met Ile His Pro Ser Asp Ser Ala Thr Arg Tyr Asn Gln Lys Phe

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

Met Ile His Pro Ser Asp Ala Glu Thr Arg Tyr Asn Gln Lys Phe

10

	Lys Asp
5	(2) INFORMATION FOR SEQ ID NO:46:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:
15	Met Ile His Pro Ser Asp Ser Glu Thr Ala Tyr Asn Gln Lys Phe 1 5 10
	Lys Asp
20	(2) INFORMATION FOR SEQ ID NO:47:
25	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:
30	Met Ile His Pro Ser Asp Ser Glu Thr Arg Tyr Asn Ala Lys Phe 1 5 10 15
	Lys Asp
35	(2) INFORMATION FOR SEQ ID NO:48:
40	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:
45	Met Ile His Pro Ser Asp Ser Glu Thr Arg Tyr Asn Gln Ala Phe 1 5 10 15
	Lys Asp

5	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:
10	Met Ile His Pro Ser Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
	Ala Asp
15	(2) INFORMATION FOR SEQ ID NO:50:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 17 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:
25	Met Ile His Pro Ser Asp Ser Glu Thr Arg Tyr Asn Gln Lys Phe 1 5 10 15
	Lys Ala
30	(2) INFORMATION FOR SEQ ID NO:51:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:
40	Gly Ile Tyr Phe Tyr Gly Thr Thr Tyr Phe Asp 1 5 10
	(2) INFORMATION FOR SEQ ID NO:52:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid

(2) INFORMATION FOR SEQ ID NO:49:

	(xi) SEQUENCE DESCRIPTION: SEQ 1D NO:52:
5	Gly Ile Ala Phe Ala Gly Thr Thr Tyr Phe Asp 1 5 10
	(2) INFORMATION FOR SEQ ID NO:53:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
4.5	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:
15	Gly Ile Tyr Phe Tyr Gly Ala Ala Ala Phe Asp 1 5 10
00	(2) INFORMATION FOR SEQ ID NO:54:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
25	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:
30	Gly Ile Ala Phe Tyr Gly Thr Thr Tyr Phe Asp 1 5 10
00	(2) INFORMATION FOR SEQ ID NO:55:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:
40	Gly Ile Tyr Phe Ala Gly Thr Thr Tyr Phe Asp 1 5 10
	(2) INFORMATION FOR SEQ ID NO:56:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid

	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:
5	Gly Ile Tyr Phe Tyr Gly Ala Thr Tyr Phe Asp 1 5 10
	(2) INFORMATION FOR SEQ ID NO:57:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:
15	Gly Ile Tyr Phe Tyr Gly Thr Ala Tyr Phe Asp 1 5 10
20	(2) INFORMATION FOR SEQ ID NO:58:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid
25	(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:
30	Gly Ile Tyr Phe Tyr Gly Thr Thr Ala Phe Asp 1 5 10
	(2) INFORMATION FOR SEQ ID NO:59:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:
40	Arg Ala Ser Lys Thr Ile Ser Lys Tyr Leu Ala 1 5 10
	(2) INFORMATION FOR SEQ ID NO:60:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 11 amino acids(B) TYPE: Amino Acid

	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:
5	Arg Ala Ser Ala Ala Ile Ala Ala Tyr Leu Ala 1 5 10
	(2) INFORMATION FOR SEQ ID NO:61:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
4.5	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:
15	Ser Gly Ser Thr Leu Gln Ser 1 5
00	(2) INFORMATION FOR SEQ ID NO:62:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid
25	(D) TOPOLOGY: (xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:
00	Ala Gly Ala Ala Leu Gln Ser 1 5
30	(2) INFORMATION FOR SEQ ID NO:63:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:
40	Ala Gly Ser Thr Leu Gln Ser 1 5
	(2) INFORMATION FOR SEQ ID NO:64:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid

	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:64:
5	Ser Gly Ala Thr Leu Gln Ser 1 5
	(2) INFORMATION FOR SEQ ID NO:65:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 7 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
4-	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:65:
15	Ser Gly Ser Ala Leu Gln Ser 1 5
	(2) INFORMATION FOR SEQ ID NO:66:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 9 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
25	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:
22	Gln Gln His Asn Glu Tyr Pro Leu Thr 1 5
30	(2) INFORMATION FOR SEQ ID NO:67:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 9 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:67:
40	Gln Gln His Ala Ala Ala Pro Leu Thr 1 5
	(2) INFORMATION FOR SEQ ID NO:68:
45	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 9 amino acids(B) TYPE: Amino Acid

	(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:68:
5	Gln Gln Ala Asn Glu Tyr Pro Leu Thr 1 5
	(2) INFORMATION FOR SEQ ID NO:69:
10	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 9 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:
	Gln Gln His Ala Glu Tyr Pro Leu Thr 1 5
20	(2) INFORMATION FOR SEQ ID NO:70:
20	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 9 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
25	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:70:
30	Gln Gln His Asn Ala Tyr Pro Leu Thr 1 5
	(2) INFORMATION FOR SEQ ID NO:71:
35	(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 9 amino acids(B) TYPE: Amino Acid(D) TOPOLOGY:
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:71:
40	Gln Gln His Asn Glu Ala Pro Leu Thr 1 5